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FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 20

[WT Docket No. 07-250; FCC 15-155]

Hearing Aid-Compatible Mobile Handsets

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: In this document, the Federal Communications Commission (Commission) modernizes its wireless hearing aid compatibility rules. The Commission adopts these rules to ensure that people with hearing loss have full access to innovative handsets and technologies.

DATES: Effective **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

FOR FURTHER INFORMATION CONTACT: Michael Rowan, Wireless

Telecommunications Bureau, (202) 418-1883, e-mail Michael.Rowan@fcc.gov, or Eli Johnson, Wireless Telecommunications Bureau (202) 418-1395, e-mail Eli.Johnson@fcc.gov.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Fourth Report and Order in WT Docket Nos. 15-285 and 07-250; FCC 15-155, adopted November 19, 2015, and released on November 20, 2015. This summary should be read with its companion document, the Notice of Proposed Rulemaking summary published elsewhere in this issue of the Federal Register. The full text of the Fourth Report and Order is available for inspection and copying during business hours in the FCC Reference Information Center, Portals II, 445 12th Street SW., Room CY-A257, Washington, DC 20554. The complete item is also available on the Commission's Web site at <http://www.fcc.gov>.

Synopsis of the Fourth Report and Order

I. INTRODUCTION

1. After review of the record and consideration of both the requirements of section 710 as amended by the Twenty-First Century Communications and Video Accessibility Act of 2010 (CVAA) and the previous actions taken in this proceeding, the Commission revises the scope of the wireless hearing aid compatibility rules largely as proposed in the 2010 Further Notice of Proposed Rulemaking (FNPRM), 75 FR 54546, Sept. 8, 2010. Specifically, the Commission broadens the scope of the wireless hearing aid compatibility rules, which have until now covered only handsets that are used with CMRS networks meeting specified characteristics enabling frequency reuse and seamless handoff. The Commission now extends the scope to cover handsets (that is, devices with a built-in speaker held to the ear in any of their ordinary uses) used with any terrestrial mobile service that enables two-way real-time voice communications among members of the public or a substantial portion of the public, including both interconnected and non-interconnected Voice over Internet Protocol (VoIP) services provided through pre-installed software applications. In doing so, the Commission establishes a comprehensive hearing aid compatibility requirement that ensures consumers with hearing loss will have access to the same rapidly evolving voice technology options available to other consumers. To ensure testability under the currently approved technical standard, the Commission will require compliance only to the extent these handsets are used in connection with voice communication services in bands covered by Commission-approved standards for hearing aid compatibility. Section 20.19(a) is limited to mobile handsets consistent with the scope of ANSI Standard C63.19, and remains so under the expanded scope. The Commission therefore affirms that cordless telephones remain subject to section 68.4 of the Commission's rules, including the hearing aid compatibility requirements applicable to telephones under Part 68, and are not affected by the change in scope.

2. While the Commission has taken steps previously to bring such emerging voice services under the rules, these steps are necessary to complete the process. The Third Report and Order adopted a technical standard that can be applied to test VoLTE, Wi-Fi-based calling, and other IP-based voice capabilities for hearing aid compatibility, and indicated an expectation that handsets that support covered CMRS voice communications services over IP-based air interfaces such as LTE would indeed be subject to the hearing aid compatibility requirements as a result. The Third Report and Order did not expand the scope provision of the rule beyond covered CMRS, or clarify the extent to which the new IP-based voice technologies and air interfaces constituted covered CMRS services. Consistent with the provisions of the CVAA that expressly extend section 710 to both interconnected and non-interconnected VoIP services, adopting the expanded scope will ensure that the wireless hearing aid compatibility requirements apply to handsets used for such services regardless of how the services are classified for other regulatory purposes, and without regard to the network architecture over which the services are provided. The Commission thus resolves any uncertainty regarding the extent to which IP-based voice services covered by the 2011 ANSI Standard are also within the scope of the hearing aid compatibility rules.

3. Its actions also ensure that the hearing aid compatibility rules cover modes of voice communications access that are increasingly available to the public as well as those that may develop in the future. For example, the expanded scope will cover handsets that enable voice communications through VoIP software applications installed by the manufacturer or service provider regardless of whether the calling functionality provides interconnection to the public switched telephone network. It will also cover advances in voice technology that have rendered obsolete some of the current rule's limitations on scope, such as provisions that apply hearing aid compatibility requirements only to services that involve frequency reuse and cell site

handoff. Unlike the current scope, the expanded scope will also apply to a voice communications service over Wi-Fi that does not utilize an in-network switching facility that enables reuse of frequencies and seamless hand-off.

1. Statutory Analysis of Expanded Scope

4. The Commission first finds that section 710, as amended by the CVAA, provides authority to require hearing aid compatibility in any device that meets the Commission's definition of handset and that is used in whole or in part for the delivery of services within the new scope of the rule. The CVAA expressly extended section 710 to cover mobile devices used with advanced communications services, including interconnected and non-interconnected VoIP services, to the extent that such devices are designed to provide two-way voice communication via a built-in speaker intended to be held to the ear in a manner functionally equivalent to a telephone. Thus, as amended by the CVAA, section 710 clearly supports expanding the scope of section 20.19 to cover the full range of handsets used to provide consumers with voice communications services, including IP-based services and voice communications software.

5. Similarly, the CVAA amendments to section 710 confirm the Commission's prior determination that obligations should extend to cover a broad range of mobile handsets, and not merely those used exclusively as telephones. For example, these amendments make clear that covered devices used with public mobile services and private radio services include devices used "in whole or in part" to provide those services. While the Commission has recognized that engineering hearing aid compatibility for multi-use handsets may require adjustments to non-voice-communication features, the statute provides that equipment must meet hearing aid compatibility standards without any specific limitation based on non-communication adjustments. The Commission reaffirms that the hearing aid compatibility rules apply to a multi-use handset that can function as a telephone even though it may serve additional purposes or

have another primary intended purpose.

6. The Commission further finds that, in deciding whether to extend the scope of the wireless hearing aid compatibility obligations, the Commission must determine whether the statutory criteria for lifting the wireless exemption are satisfied, as it did in 2003 when it first modified the exemption for wireless telephones. The Commission examines each of the four criteria for lifting the exemption below, and determine that each criterion has been satisfied. The Commission finds that (1) individuals with hearing loss would be adversely affected absent the expansion of the rule's scope; (2) compliance with the Commission's hearing aid compatibility rules for the handsets within the expanded scope is technologically feasible; (3) compliance would not increase costs to such an extent that such equipment could not be successfully marketed; and (4) in consideration of these factors, and the costs and benefits of the rule change, expanding the scope of the hearing aid compatibility rules beyond covered CMRS is in the public interest.

7. The Commission emphasizes that the Commission's analysis of the four criteria for lifting the exemption is not restricted to voice communications services that are deployed in the 698 MHz to 6 GHz band, and that the Commission finds that the criteria for lifting the exemption are met for such services in any frequency band, including frequencies outside the band covered by the ANSI 2011 Standard. Consistent with prior Commission determinations, however, the Commission retains the current restriction in the scope of the rule to the 698 MHz to 6 GHz band at this time, so that compliance under the rule is required only for operations in spectrum bands for which there is an approved technical standard. As new frequencies are deployed for comparable voice services and standards for them approved, however, incorporating such frequencies into the rule early in their deployment will better facilitate access to handsets using such frequencies when they are rolled out to the public. For example, the

Incentive Auction scheduled to begin in early 2016 will involve new, flexible-use licenses in the 600 MHz Band that are suitable for providing mobile broadband services. The Commission expects that the technical standards needed for any such frequencies will be developed in timely fashion. To the extent that a manufacturer believes that compliance is not technically feasible or would prevent marketability for devices used with a future public mobile service—such as one that operates in the 600 MHz Band—the manufacturer may apply for a waiver under section 710(b)(3) for the applicable “new telephones, or telephone associated with a new technology or service.” By addressing the statutory exemption as it applies to additional frequencies now, the Commission ensures that it need not engage in a similar statutory analysis each time ANSI adopts a revision to cover an additional frequency range, which will help to expedite incorporation of such revisions into the rules and therefore speed the testing and offering of new hearing aid-compatible technologies to consumers. The Commission’s determinations in this Fourth Report and Order should remove any doubt that, as new frequencies are deployed for comparable voice services and corresponding hearing aid compatibility standards are developed, the Commission intends to incorporate them into the Commission’s requirements. This will advance the Commission’s goal that the Commission’s rules provide people who use hearing aids and cochlear implants with continuing access to the most advanced and innovative technologies as they develop.

8. Adverse Effect on People with Hearing Loss. In the FNPRM, the Commission proposed to find that failure to extend hearing aid compatibility requirements broadly to handsets used for voice communications with members of the public or a substantial portion of the public, including those operating over new and developing technologies, would have an adverse effect on people with hearing loss and deny such consumers an opportunity to use advanced functionalities and services becoming commonplace in society. The Commission further

suggested that the inability to access such innovative technologies as they develop would have an adverse effect on individuals with hearing loss, and that a broad scope could address that concern by encouraging manufacturers to consider hearing aid compatibility at the earliest stages of the product design process.

9. Consumer Groups and ASHA comment that people with hearing loss who use hearing aids need access to mobile phone services just like every other American, including at home, work, school, and in emergency situations, and that updated regulations can help to ensure that these people can be fully integrated into society. TIA comments that manufacturers have made gains to enhance access by deaf or hard of hearing individuals to new technologies and hearing aid-compliant products, while CTIA contends that the current rules for hearing aid compatibility have been highly effective in ensuring that a wide variety of compliant wireless handsets are available to the public.

10. Consistent with the Commission's proposed findings, the Commission concludes that failure to adopt the expanded scope would adversely affect people with hearing loss. Absent the amended scope, mobile VoIP services would be covered only to the extent that they were determined to both satisfy the definition of CMRS and involve the use of "an in-network switching facility that enables the provider to reuse frequencies and accomplish seamless hand-offs of subscriber calls." Those limitations, the Commission finds, would materially impede the ability of people with hearing loss to use many advanced devices and networks, and the Commission notes that ongoing innovation would likely amplify this harmful impact over time. If handsets encompassing these emerging technologies are not broadly made hearing aid-compatible, consumers with hearing loss who use hearing aids or cochlear implants could be left without full access to new technologies and networks that are used increasingly by members of the public to communicate with one another at home, at work, and as they travel, including for

communications in critical emergencies. The Commission notes that mobile technologies generally are increasingly important to members of the public. According to the National Center for Health Statistics, the percentage of adults living in households with only wireless telephones has been steadily increasing with about 44.1 percent of adults (about 106 million adults) living in wireless-only households as of the last six months of 2014; in addition, as of the last six months of 2014, 54.1 percent of all children (nearly 40 million children) lived in households that only used wireless telephones. Having access to emerging IP-based voice technologies such as High Definition Voice may prove particularly important to individuals with hearing loss. In addition, as these emerging handsets evolve to encompass a wide and growing range of computing and other functions, a lack of hearing aid-compatible handsets may force individuals with hearing loss to choose between limiting their voice communications or limiting their access to many of the other features that these new handsets offer.

11. In broadening the scope of the rule, the Commission is mindful that it is important to ensure hearing aid-compatible access to handsets, voice technologies, and networks not only once they are established but also as they develop in the future. The Commission anticipates ongoing innovation in mobile voice technologies that will lead to more services for consumers to communicate that do not use the North American Numbering Plan or involve the cellular system architecture reflected in the current rule. By making clear that hearing aid compatibility requirements apply not only to currently available technologies such as VoLTE but to all mobile terrestrial services that enable two-way, real-time voice communications among members of the public, the Commission ensures that new consumer devices—that might be developed or emerge in the future—will be covered as technical standards become available, regardless of regulatory classification or network architecture, unless a waiver is granted. The Commission expects manufacturers to take hearing aid compatibility into account during the early stages of product

development.

12. Technological Feasibility. In the FNPRM, the Commission sought comment on whether handsets that are currently on the market or are planned for introduction that fall within the coverage of the proposed rule, but are not covered by the existing rule, would meet the existing ANSI standard or a similar performance standard, for frequency bands and air interfaces that are not addressed by the existing standard. Given that hearing aid compatibility standards were already being met for handsets that operate on a variety of 2G and 3G air interfaces over two frequency bands, the Commission stated that, absent evidence to the contrary, it was likely that such standards could be met for handsets not within the class of covered CMRS but that provide similar services. The Commission further indicated that commenters arguing that compliance was not feasible should provide specific engineering evidence related to a defined class of handsets.

13. TIA comments that the Commission should not expand the application of the hearing aid compatibility requirements beyond the scope of consumer wireless handsets with CMRS functionality until there is a better understanding of the obstacles in making the products and expanding services, and argues that issues relating to applying the rules to VoLTE and Wi-Fi with CMRS capability illustrate that emerging technologies create new and previously unanticipated technical challenges.

14. The Commission concludes that it is technologically feasible to manufacture newly covered handsets so they meet the minimum ratings for hearing aid compatibility under the current technical standard or, to the extent they may be deployed in frequencies not addressed under the 2011 ANSI Standard, under a similar performance standard. Since the Commission proposed its analysis in 2010, subsequent developments have only confirmed that compliance with the hearing aid compatibility requirements will generally be feasible for consumer mobile

voice technologies. Indeed, manufacturers are already successfully testing and rating VoLTE operations for both T- and M-rating compliance, and they are also successfully testing and rating CMRS-enabled voice communications over Wi-Fi (hereinafter “Wi-Fi Calling”) for M-rating compliance, demonstrating empirically that compliance in those areas is technologically feasible. In addition, OET’s Laboratory Division issued guidance in October 2013 describing the technical parameters related in part to testing VoLTE and Wi-Fi Calling functionalities for both M-ratings and T-ratings, and did not identify any challenges related to technological feasibility. While the 2013 guidance did observe that the equipment needed to test for T-coil compliance for Wi-Fi Calling “may not be readily available” and therefore excluded such operations from the testing obligation, nothing in the record suggests that the availability of testing equipment remains a challenge, and perhaps more significantly, this limitation does not bear on technological feasibility.

15. The Commission finds that any technical challenges to achieving hearing aid compatibility in handsets will not differ significantly from those that manufacturers have already addressed in achieving hearing aid compatibility in the broad range of mobile handsets noted above. Indeed, because the specifications for new air interface technologies (such as the Fifth Generation or 5G wireless technology) will now be developed with the expectation that hearing aid compatibility requirements will apply, the Commission anticipates that the need to meet such requirements will be taken into account early in the design process, which should help to ensure that compatibility for such technologies is feasible. The Commission notes that industry commenters have provided no example of developing technology within the adopted scope for which achieving hearing aid compatibility was found to be infeasible, and the Commission knows of no reason that consumer handsets that operate over systems within the expanded scope could not achieve these ratings. As the Commission noted in 2010, to the extent the Commission

is presented with the rare case of a new technology that cannot feasibly meet the requirements, or cannot do so in full, section 710 expressly provides for a waiver.

16. Marketability. In the FNPRM, the Commission stated that based on the number of hearing aid-compatible models that were already being successfully marketed across multiple air interfaces and frequency bands, it anticipated, in the absence of convincing evidence to the contrary, that other telephones offering similar capabilities and meeting the same or comparable compliance standards could also be successfully marketed. The Commission sought comment on this statement and on whether there is any class of handsets for which the cost of achieving compliance would preclude successful marketing. The Commission sought comment on whether, for reasons of technological infeasibility or prohibitive costs, any rule provisions could not be applied to any class of handsets.

17. Generally, aside from the impact relating to satellite phones, commenters did not address in detail whether compliance would increase costs to such an extent that equipment could not be successfully marketed. TIA argues that an open-ended application of the rules to other types of wireless handsets with voice capability but which are not typically held to the ear would, among other matters, impose undue financial burdens. HIA comments that in terms of costs, compatibility with other devices is already a factor in hearing aid design, and thus does not anticipate that a “to the ear” standard it supports would impose additional costs on its members.

18. In order to expand the scope of section 20.19, the Commission must also find that compliance would not increase costs to a degree that would prevent successfully marketing of the equipment. As discussed above in the Commission’s analysis of technological feasibility, manufacturers already offer numerous hearing aid-compatible handsets with differing features and physical characteristics over a variety of air interfaces, including a number of models certified as hearing aid-compatible over LTE. Further, while Iridium and Inmarsat raise

concerns about the impact of hearing aid compatibility requirements on the marketability of satellite phones, no commenter raises any concerns about marketability with respect to handsets and operations within the expanded scope the Commission adopts in this Fourth Report and Order. Considering the absence of anything in the record demonstrating compliance costs that would depart materially from the costs for handsets that already comply, the Commission anticipates that handsets offering comparable voice communications capabilities to the public will similarly be marketable. The Commission therefore finds that requiring hearing aid compatibility for handsets newly within the scope of the requirements will not undermine their marketability. To the extent the Commission is presented with the rare case of a new technology for which compliance would increase costs to the extent that the technology could not be successfully marketed, section 710 expressly provides that the Commission may waive the requirements.

19. Public Interest. In the FNPRM, the Commission proposed to find that expanding the scope of the hearing aid compatibility requirements to reach handsets using new technologies would serve the public interest. In seeking comments on this proposal, the Commission stated that its policy “is to encourage manufacturers to consider hearing aid compatibility at the earliest stages of the product design process.” The Commission further stated that the Hearing Aid Compatibility Act makes clear that consumers with hearing loss should be afforded equal access to communications networks to the fullest extent feasible. The Commission stated that commenters should address the proposed finding that further modification of the exemption to reach handsets using new technologies is in the public interest.

20. Consumer Groups argue that there are millions of Americans with hearing loss, technological innovations help people with disabilities, and they need access to their mobile phones in different settings. ASHA and Lintz note the importance of wireless phones to those

who suffer from hearing loss.

21. The Commission concludes, in light of the consideration of the costs and benefits to all telephone users, that applying the hearing aid compatibility requirements to all handsets and services within the expanded scope, including current and emerging IP-based voice services, will serve the public interest. Most notably, an expanded scope will ensure that the country's approximately 36 million individuals with hearing loss have access to the advances in communications and related technology that are becoming increasingly essential to participation in our society. The expanded scope makes it more likely that individuals with hearing loss will have access to the latest technology in mobile handsets since technological innovations will generally have to be considered in the design stage for the handsets. The Commission further finds that enabling access to the full—and growing—range of handsets available to all other consumers will provide both social and economic benefits to consumers with hearing loss. Access to mobile handsets with innovative technologies as they develop can benefit not just an employee with hearing loss who uses his or her own mobile phone but the employer and co-workers as well, by facilitating the full participation and valuable input of employees with hearing loss who otherwise may be restricted in their ability to fully communicate with their colleagues. Members of the public will also generally benefit from being able to communicate with people with hearing loss as fully and robustly as possible. The Commission also notes that the wireless industry's comments demonstrate broad support for covering advanced services. For example, in its comments to the 2010 FNPRM, TIA supports “expand[ing] the scope of the hearing aid compatibility rules to advanced communications technologies” guided by the Commission's Policy Statement and consistent with section 710 of the Act. For these reasons, the Commission finds that expanding the scope of section 20.19 as discussed herein advances the public interest.

22. Public Safety and Private Enterprise Networks. The Commission declines, at this time, to extend the hearing aid compatibility rules to handsets used exclusively with services that are not available to the public, such as services over public safety or private enterprise networks (meaning those networks that are designed and deployed to meet a business's specific communications needs). For example, the Commission does not extend hearing aid compatibility requirements to state, local, and Tribal public safety radio systems used by police, fire, or emergency medical personnel for dispatch and emergency response. Consistent with this determination, the Commission further clarifies that the incorporation of a VoIP functionality operating over Wi-Fi in a public safety or private enterprise device does not bring the device under the expanded scope of the rule. Rather, The expanded scope will cover only devices used with the provision of a service available to the public or a substantial portion of the public.

23. In the past, the Commission's decisions to lift the exemption for devices used with some wireless services, and particularly the Commission's determination that doing so is in the public interest, have been based in part on the Commission's findings that these devices and services have become part of the mass market for communications. Generally, handsets for network services such as public safety or private enterprise networks are designed for a specialized market with a limited set of users. Based on the record before us, there is little evidence on the extent that these specialized public safety and private enterprise devices would satisfy the criteria of technical feasibility and marketability. Rather, the record supports the Commission's tentative conclusion in the FNPRM that the different market circumstances for public safety or private enterprise networks and the absence of an existing universe of hearing aid-compatible handsets would increase the burden of meeting the hearing aid compatibility requirements. In addition, although the Commission recognizes there are benefits to ensuring accessibility to public safety or private enterprise devices, the record reflects that the typical

weight, shape, and other aspects of the physical design of public safety and private enterprise devices are such that the radios conventionally are not held up to the ear but rather used with audio that emanates from a loudspeaker with adjustable volume control rather than from a telephone earpiece. As such, the Commission finds that these devices are generally not comparable in their typical use to the wireless handsets covered by the hearing aid compatibility obligations. The Commission also finds that the public interest requires that the Commission proceeds with caution in order to avoid requirements that may discourage, delay, or increase the cost of equipment where public safety or critical infrastructure operations are directly at stake. Taking these factors into consideration, the record precludes us from finding that the benefit associated with expanding the rule to public safety and private enterprise networks would outweigh the cost. Accordingly, the Commission finds, at this time, that the statutory requirements are not met in order to expand the scope of the hearing aid compatibility rules to include these devices. The Commission continues to be sensitive to the needs of those individuals with hearing loss, however, and will consider re-visiting this issue if it comes to the Commission's attention that the benefits associated with expanding the rule come to outweigh the costs.

24. Non-terrestrial Networks. Based on the existing record, the Commission is unable to find that the statutory criteria for lifting the hearing aid compatibility exemption have been satisfied for radio communication devices operating over non-terrestrial networks, such as those operating in the MSS. As Iridium has explained, MSS handsets operate at significantly higher power levels than mass market devices and must communicate with stations over a dramatically greater distance than comparable terrestrial technologies. Iridium also notes that lower sales volumes, in-house product development, and longer product development and marketing cycles due to infrequent product replacements pose additional impediments to

achieving hearing aid compatibility. Even if such challenges could be overcome, the record supports the conclusion that each MSS provider would need to develop its own solution, and the Commission is concerned that the increased costs associated with complying with the rules in those circumstances, and the MSS industry's need to recover those costs over a relatively limited market, would prevent the successful marketing of MSS handsets or discourage further innovation in such handsets. Further, because MSS providers offer a specialized service over customized technology to a small customer base that is focused on government, critical infrastructure, and other large enterprise users, and not the public at large, the Commission finds that extending hearing aid compatibility requirements to the MSS raises concerns similar to those noted above regarding public safety and private enterprise networks. Indeed, the Commission found last year that these characteristics justified not extending to MSS the text-to-911 requirements that the Commission otherwise imposed broadly on CMRS providers and all other providers of interconnected text-messaging applications. Although there could be benefits to individuals with hearing loss from extending the scope of the hearing aid compatibility rules to cover such devices and services, the current differences between MSS and terrestrial services, as well as concerns and uncertainty regarding the marketability and technological feasibility of hearing aid-compatible MSS devices, do not allow us at this time to make the determinations necessary to lift the exemption for these devices. The Commission will reevaluate in the future whether the MSS should remain exempt from the scope of the hearing aid compatibility rules.

2. Voice Capability Provided through Software

25. Background. When the Commission first promulgated hearing aid compatibility rules, applications that enable voice communications through third-party software did not exist. If a digital handset enabled voice communications, it could do so only through the native voice capabilities of the service provider's network technology relying on a voice coder-decoder

(codec) embedded in the hardware. Today, mobile voice communications can be enabled in a variety of ways, including: applications pre-installed by the manufacturer, its operating system software partner, or a service provider; applications downloaded by the end user from the manufacturer's store; or applications that the end user obtains from an independent source.

While third-party voice applications may rely on a voice codec built into the operating system or hardware of the device, they may also use their own proprietary codec. While seeking comment in the 2010 FNPRM on expanding the scope of the hearing aid compatibility rules beyond covered CMRS, the Commission also sought comment on how its hearing aid compatibility rules should address circumstances where voice capability may be enabled on a handset by a party other than the manufacturer.

26. AT&T, ATIS, Consumer Groups, CTIA, MetroPCS, Motorola, TIA, and T-Mobile agree that manufacturers and service providers should not be required to ensure compliance for voice communication capabilities added to a handset by consumers or third parties after original purchase. In connection with this argument, AT&T, CTIA, and TIA cite section 2(a) of the CVAA, which they claim limits liability for certain third-party activities, as support for exempting them from compliance responsibility for third party actions. These commenters oppose subjecting manufacturers and service providers to testing requirements for third party applications unless the manufacturer and service provider have themselves affirmatively incorporated the application into a device, arguing, in the main, that manufacturers and providers lack control over third party applications installed in the device by someone else. In contrast, HIA argues that hearing aid compatibility should be ensured both “at the time of sale” and upon “installation of a voice feature.” As an alternative approach, Consumer Groups urge the Commission to require manufacturers and service providers to include provisions in their licensing agreements or contracts with software application developers to ensure that

software maintains the hearing aid compatibility of a device.

27. Discussion. After consideration of the record, the Commission agrees with those commenters that argue against applying the hearing aid compatibility requirements to voice applications added by consumers after their purchase of the device. The record demonstrates that testing a device for hearing aid compatibility for all possible applications is infeasible at this time because manufacturers and service providers are unable to predict what third-party software a consumer may choose to install. The Commission believes it would create incentives to restrict the open development of new voice applications if the Commission holds manufacturers and service providers responsible for hearing aid compatibility compliance for all third-party voice applications. Certifying a handset for hearing aid compatibility does not require testing software-based voice functions except to the extent that such software applications are installed by the manufacturer or service provider, or at their direction, for use by a consumer over a given air interface. The Commission requires that, when testing a device's operations over a given air interface, manufacturers must ensure the hearing aid compatibility of all voice communication functionality they provide over that interface whether such functionality is provided through software, hardware, or both. The Commission declines to limit responsibility to the subset of such software installed prior to certification, as suggested by TIA. Such a restriction would not ensure compatibility of software that manufacturers or service providers install after certification, and the Commission sees no reason not to require compatibility of such software. Because, under the Commission's approach, manufacturers and service providers need only ensure the compatibility of the software-based voice operations that are installed by the manufacturer or service provider or at their direction, and such operations are necessarily within their control, the Commission finds that testing any software-based voice functionality is technically feasible, not unduly burdensome, and beneficial to consumers with hearing loss who may wish to use such

operations.

28. Previously, the Commission has permitted manufacturers and service providers to obtain hearing aid compatibility certification for handsets that are capable of supporting additional voice capability without testing for such operations, including the operations addressed above, but has required them to disclose to consumers that not all of the handsets' operations have been tested and rated for hearing aid compatibility. While the Commission now establishes a requirement to test and rate software applications installed under the circumstances specified above in order to obtain hearing aid compatibility certification, the Commission finds it appropriate to provide a period of time during which manufacturers may continue to certify handsets based on disclosure rather than testing. The Commission anticipates that implementing the requirement to test and rate software-based voice functionality will require additional guidance on testing parameters, the development of new systems capable of testing the applicable codec/air interface combinations, as well as coordination between manufacturers, service providers, and third-party application providers. Given these implementation issues, the Commission provides that during the transition period for applying deployment benchmarks, manufacturers may continue to obtain hearing aid compatibility ratings for a device's operation on a given air interface without testing and rating software-enabled voice functions, as long as they disclose to consumers that certain operations have not been tested and rated for hearing aid compatibility, consistent with the disclosure required in section 20.19(f)(2)(i). The Commission notes again that ANSI ASC C63[®]-EMC, at its November 2015 meeting, formally approved a project to revise the ANSI C63.19 standard for hearing aid compatibility to address a number of topics, including some technologies not covered in the current version of the standard. The application of the transition period to software-based voice operations reflects, in part, the Commission's expectation that industry groups will work through the standards process to

finalize all necessary guidance well before the end of the transition period. If manufacturers and service providers come to conclude that such guidance is not available sufficiently far in advance of the transition date to allow parties to come into compliance, they may seek an extension of the transition deadline by petitioning the Commission for a waiver of this regulatory deadline under the Commission's waiver rules (e.g., sections 1.3 and/or 1.925, as appropriate). As part of its review of any petitions to waive this regulatory deadline, the Commission will consider possible impacts on consumers with hearing loss.

3. Transition Period for Applying Existing Deployment Benchmarks

29. Background. To ensure that a wide selection of digital wireless handset models is available to consumers with hearing loss, the Commission's hearing aid compatibility rules require both manufacturers and service providers to meet defined benchmarks for deploying hearing aid-compatible wireless handsets. Specifically, manufacturers and service providers are required to offer minimum numbers or percentages of handset models that meet the technical standards for compatibility with hearing aids operating in modes for acoustic coupling (M-rating) and inductive coupling (T-rating). These benchmarks apply separately to each air interface for which the manufacturer or service provider offers handsets.

30. In the 2010 FNPRM, the Commission sought comment on the appropriate transition period before applying these hearing aid compatibility deployment benchmarks to lines of handsets that are "outside the subset of CMRS that is currently covered by section 20.19(a)." In this regard, the Communications Act, as amended by the CVAA, directs the Commission to "use appropriate timetables or benchmarks to the extent necessary (1) due to technical feasibility, or (2) to ensure the marketability or availability of new technologies to users."

31. In their comments, Clearwire, CTIA, T-Mobile, and Motorola support a two-year

transition as adequate for many handsets to come into compliance with existing benchmarks. RWA, Blooston, and RTG support longer time frames of up to an additional 12 months for small, rural, and/or Tier III service providers who, these commenters contend, do not have the same access to new handsets as Tier I providers. While it did not propose any specific time period, HIA states that the transition period should be no longer than the minimum amount of time needed for a new product design cycle.

32. Discussion. Based on the record in this proceeding, the Commission finds it in the public interest to adopt a January 1, 2018 transition date (for manufacturers and Tier I carriers) and an April 1, 2018 transition date (for other service providers) for applying section 20.19's deployment benchmarks and related requirements to newly covered air interfaces, *i.e.*, those air interfaces that operate outside the former scope of the hearing aid compatibility rules due to either regulatory status or network architecture issues. The Commission will begin enforcing the benchmarks for these newly covered air interfaces once the applicable transition period expires. After the transition is complete, the M- and T-rating deployment benchmarks for handsets supporting any newly covered operations will be the same as those used for currently covered operations in handsets, and the Commission will apply the same benchmark requirements (including the de minimis rules) to all handsets, including newly covered operations, that a manufacturer or a service provider offers. In this regard, the Commission notes that TIA argues that the Commission should extend the de minimis exception to handsets offered over air interfaces that a manufacturer or service provider is phasing out of its portfolio. This comment appears to go to the exception's operation generally and not to its application after a possible transition, and therefore it is outside the scope of the FNPRM.

33. The Commission finds that a January 1, 2018 transition date is appropriate for both manufacturers and Tier I service providers. When the Commission adopted its initial

hearing aid compatibility rules in 2003, it gave manufacturers and Tier I carriers 24 months to comply with acoustic coupling requirements. Similarly, in 2012, OET and WTB adopted a 24-month transition period for covered CMRS operations that use frequency bands and air interfaces that can be tested under the 2011 ANSI Standard. As discussed above, the Commission finds that any challenges related to technical feasibility and marketability will not be significantly different for newly covered handsets than for handsets that are currently being made hearing aid-compatible under the rule. The Commission finds that a similar transition period provides adequate time to adjust handset portfolios to ensure compliance with the benchmarks that apply independently to each air interface, regardless of whether the voice communications functionality is network-based or software-based. This transition period affords manufacturers a reasonable amount of time to implement requirements to test and rate software-based voice functionality. Although HIA argues that the transition period should be limited to the length of a typical product design cycle, the Commission has previously determined that two years is an appropriate period to accommodate the typical handset industry product development cycle, and the record in this proceeding further supports that conclusion. The Commission finds that a January 1, 2018 transition date for manufacturers and Tier I service providers is an appropriate timetable to account for any issues of technical feasibility and marketability.

34. The Commission affords an additional three months for non-Tier I service providers to meet the deployment benchmarks and related requirements for handsets newly subject to the hearing aid compatibility rules. In allowing additional time until the April 1, 2018 transition date, the Commission recognizes that non-Tier I service providers often have difficulty obtaining the newest handset models. While some commenters argue that the transition period should be longer in certain instances, the record does not demonstrate a need for an even greater transition period for non-Tier I service providers nor any reason to depart from prior hearing aid

compatibility transitions in which the Commission afforded non-Tier I providers an additional three months beyond the transition period provided to Tier I service providers.

35. Given that many manufacturers and service providers began meeting benchmarks in 2014 for handsets with operations over the additional air interfaces and frequency bands covered by the 2011 ANSI Standard, including in the case of the LTE air interface, the Commission anticipates that these parties will continue to meet existing benchmarks during the transition. The Commission finds this expectation reasonable for any IP-based voice services, including VoLTE and Wi-Fi Calling, given that affected parties are already meeting deployment benchmarks for VoLTE operations, and the record reflects that manufacturers and service providers are in some cases already widely complying with hearing aid compatibility requirements.

36. The Commission notes that, due to a lack of testing equipment availability, manufacturers are currently permitted to obtain certification of handset models for inductive coupling capability under the 2011 ANSI Standard without testing and rating any present VoLTE or Wi-Fi Calling operations, subject to a disclosure that such handsets have not been tested and rated for all of their operations. The Commission emphasizes that, at the January 1, 2018 transition date, parties will need to meet requirements to test and rate for inductive coupling capability, including for VoLTE and Wi-Fi Calling if such services are included in the handset, in order to certify such handsets as hearing aid-compatible and meet applicable deployment requirements. During the transition, however, the Commission will continue the interim process permitting disclosure instead of inductive coupling testing and rating for VoLTE and Wi-Fi Calling when used to provide CMRS-based voice services. The Commission notes that some newer VoLTE-enabled handsets have been tested and rated for inductive coupling capability. The record reflects an industry understanding that the current process allowing for disclosure

instead of testing and rating for inductive coupling capability in all modes of operation is temporary. Indeed, the industry has had notice for over a year that Commission staff are reassessing how long the Commission should use the current process as testing equipment and protocols become increasingly available. Thus, the Commission finds that the January 1, 2018 transition date is a reasonable point in time at which the Commission will require full inductive coupling testing and rating of handsets with VoLTE and Wi-Fi Calling functionality before certifying these handsets so manufacturers and service providers can meet their deployment benchmarks.

II. PROCEDURAL MATTERS

A. Final Regulatory Flexibility Analysis

37. As required by the Regulatory Flexibility Act of 1980, as amended (RFA), the Federal Communications Commission (Commission) included an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities of the rules considered in the FNPRM in WT Docket 07-250. The Commission sought written public comments on the FNPRM in this docket, including comment on the IRFA. Because the Commission amends its rules in the Fourth Report and Order, the Commission has included this Final Regulatory Flexibility Analysis (FRFA) which conforms to the RFA. To the extent that any statement contained in this FRFA is perceived as creating ambiguity with respect to the Commission's rules, or statements made in preceding sections of this Fourth Report and Order, the rules and statements set forth in those preceding sections shall be controlling.

1. Need for, and Objectives of, the Fourth Report and Order

38. Until now, the hearing aid compatibility rules have generally been limited only to handsets used with two-way switched voice or data services classified as Commercial Mobile

Radio Service (CMRS), and only to the extent they are provided over networks meeting certain architectural requirements that enable frequency reuse and seamless handoff. In the Fourth Report and Order, the Commission expands the scope of these rules to cover the emerging wireless technologies of today and tomorrow. The rules adopted here eliminate uncertainty about the scope of the Commission’s hearing aid compatibility requirements and ensure that emerging voice services will be covered regardless of their classification for other regulatory purposes and without restriction to a particular network architecture. The rules now extend to handsets (those mobile device that contain a built-in speaker and are typically held to the ear in any of their ordinary uses) used with any terrestrial mobile service that enables two-way real-time voice communications among members of the public or a substantial portion of the public, including through the use of pre-installed software applications. The Commission also adopts a transition period that ensures industry stakeholders will be able to comply with these rules while continuing to innovate and invest. By expanding the scope of the Commission’s rules to those consumer mobile devices that are typically held to the ear, are heavily relied on for voice communications, and operate in bands covered by approved standards—and only where compliance is technically feasible—we target the Commission’s efforts to those situations where Commission action can make a significant impact and best serve the public interest. In this regard, the Commission has been mindful of its obligation to expand hearing aid compatibility requirements only in those instances where the record supports the necessary statutory findings mandated by the Hearing Aid Compatibility Act. This action will require that future technologies comply with the Commission’s hearing aid compatibility rules, ensuring that consumers with hearing loss are not always trying to catch up to technology and providing industry with additional regulatory certainty.

2. Summary of Significant Issues Raised by Public Comments in

Response to the IRFA

39. There were no comments filed that specifically addressed the rules and policies proposed in the IRFA.

3. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Would Apply

40. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by proposed rules. The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.” In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act. A “small business concern” is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (“SBA”).

41. Small Businesses, Small Organizations, and Small Governmental Jurisdictions. The Commission’s action may, over time, affect small entities that are not easily categorized at present. The Commission therefore describes here, at the outset, three comprehensive, statutory small entity size standards. First, nationwide, there are a total of approximately 27.5 million small businesses, according to the SBA. In addition, a “small organization” is generally “any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.” Nationwide, as of 2007, there were approximately 1,621,315 small organizations. Finally, the term “small governmental jurisdiction” is defined generally as “governments of cities, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand.” Census Bureau data for 2011 indicate that there were 89,476 local governmental

jurisdictions in the United States. The Commission estimates that, of this total, as many as 88,506 entities may qualify as “small governmental jurisdictions.” Thus, the Commission estimates that most governmental jurisdictions are small.

42. Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing. The Census Bureau defines this category as follows: “This industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment. Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment.” The SBA has developed a small business size standard for Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing, which is: all such firms having 750 or fewer employees. According to Census Bureau data for 2007, there were a total of 939 establishments in this category that operated for part or all of the entire year. Of this total, 912 had less than 500 employees. Thus, under this size standard, the majority of firms can be considered small.

43. Part 15 Handset Manufacturers. The Commission has not developed a definition of small entities applicable to unlicensed communications handset manufacturers. Therefore, the Commission will utilize the SBA definition applicable to Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing. The Census Bureau defines this category as follows: “This industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment. Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment.” The SBA has developed a small business size

standard for Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing, which is: all such firms having 750 or fewer employees. According to Census Bureau data for 2007, there were a total of 939 establishments in this category that operated for part or all of the entire year. Of this total, 912 had less than 500 employees. Thus, under this size standard, the majority of firms can be considered small.

44. Wireless Telecommunications Carriers (except satellite). The Census Bureau defines this category as follows: “This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves. Establishments in this industry have spectrum licenses and provide services using that spectrum, such as cellular phone services, paging services, wireless Internet access, and wireless video services.” The appropriate size standard under SBA rules is for the category Wireless Telecommunications Carriers (except Satellite). In this category, a business is small if it has 1,500 or fewer employees. For this category, census data for 2007 show that there were 1,383 firms that operated for the entire year. Of this total, 1,368 firms had employment of 999 or fewer employees and 15 had employment of 1000 employees or more. According to Commission data, 413 carriers reported that they were engaged in the provision of wireless telephony, including cellular service, PCS, and Specialized Mobile Radio (SMR) telephony services. Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees. The Commission estimates that approximately half or more of these firms can be considered small. Thus, using available data, the Commission estimates that the majority of wireless firms can be considered small.

45. Internet Service Providers. The 2007 Economic Census places these firms, whose services might include Voice over Internet Protocol (VoIP), in one of three categories. The first refers to whether the service is provided over the provider’s own telecommunications facilities

(e.g., cable and DSL ISPs), or over client-supplied telecommunications connections (e.g., dial-up ISPs). This type of ISP is classified by the Commission in the category of Wired Telecommunications Carriers. Wired Telecommunications Carriers comprise establishments primarily engaged in operating or providing access to transmission facilities or infrastructure that they own and/or lease for the transmission of voice, data, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or on a combination of technologies. Establishments in this industry use the wired telecommunications network facilities to provide a variety of services, such as wired telephony services, including VoIP services, wired cable audio and video programming distribution, and wired broadband Internet services. By exception, establishments providing satellite distribution services using facilities and infrastructure that they operate are included in this industry. Wired Telecommunications Carriers have an SBA small business size standard under which an establishment having 1,500 or fewer employees is small. The second type of ISP is classified in the category of Wireless Telecommunications Carriers (except satellite). This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves. Establishments in this service have spectrum licenses and provide services using that spectrum, such as cellular phone services, wireless Internet access, and wireless video services. The size standard for Wireless Telecommunications Carriers (except satellite) is the same as for Wired Telecommunications Carriers. The third type of ISP is classified under All Other Telecommunications. This industry comprises establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of

transmitting telecommunications to, and receiving telecommunications from, satellite systems. Establishments providing Internet services or VoIP services via client-supplied telecommunications connections are also included in this industry. The SBA size standard for this industry states that all establishments in this category whose annual receipts are \$32.5 million or less are small.

46. For purpose of this rulemaking, the Commission is concerned only with those ISPs that are classified either in the category of Wireless Communications Carriers (except satellite) or are classified in the category of All Other Telecommunications. The type of handsets which are the subject of the proposed rulemaking herein is primarily, if not exclusively, concerned with wireless handsets. ISPs which are classified under Wired Telecommunications are not relevant in the context of this particular rulemaking.

47. United States census data for 2007 show that there were 1,383 Wireless Telecommunications Carriers (except satellite) firms that operated for the entire year. Of this total, 1,368 firms had employment of 999 or fewer employees. According to Commission data, 413 carriers reported that they were engaged in the provision of wireless telephony, including cellular service, PCS, and Specialized Mobile Radio (SMR) telephony services. Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees. Consequently, the Commission estimates that approximately half or more of these firms can be considered small. Thus, using available data, the Commission estimates that the majority of wireless telecommunications carriers can be considered small.

48. With regard to the category of All Other Telecommunications, U.S. Census data for 2007 state that 2,383 firms were operational during that year. Of that number, 2,346 had annual receipts of less than \$25 million. The Commission estimates that the majority of ISP firms in this category are small entities.

49. All Other Information Services. The Census Bureau defines this industry as including “establishments primarily engaged in providing other information services (except news syndicates, libraries, archives, Internet publishing and broadcasting, and Web search portals).” VoIP services over wireless technologies could be provided by entities that provide other services such as email, online gaming, web browsing, video conferencing, instant messaging, and other, similar IP-enabled services. The SBA has developed a small business size standard for this category; that size standard is \$27.5 million or less in average annual receipts. According to Census Bureau data for 2007, there were 367 firms in this category that operated for the entire year. Of these, 354 had annual receipts of under \$25 million. The Commission estimates that the majority of these firms are small entities that may be affected by the Commission’s action.

4. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

50. The current hearing aid compatibility regulations impose a number of obligations on covered CMRS providers and the manufacturers of handsets used with those services, including: (1) requirements to deploy a certain number or percentage of handset models that meet hearing aid compatibility standards, (2) “refresh” requirements on manufacturers to meet their hearing aid-compatible handset deployment benchmarks in part using new models, (3) a requirement that service providers offer hearing aid-compatible handsets with varying levels of functionality, (4) a requirement that service providers make their hearing aid-compatible models available to consumers for testing at their owned or operated stores, (5) point of sale disclosure requirements, (6) requirements to make consumer information available on the manufacturer’s or service provider’s website, and (7) annual reporting requirements.

51. The Fourth Report and Order expands the scope of the hearing aid compatibility

rules to cover handsets used with any terrestrial mobile service that enables two-way real-time voice communications among members of the public or a substantial portion of the public, including through the use of pre-installed software applications and other Internet Protocol (IP)-based technologies. After the transition period, the rules the Commission adopts will extend to providers of wireless voice communications among members of the public or a substantial portion of the public using equipment that contains a built-in speaker and is typically held to the ear, and to the manufacturers of such equipment, the same hearing aid compatibility rules that currently apply to a defined category of CMRS. The Commission also clarifies that testing a handset for hearing aid compatibility does not require testing software voice functions except to the extent that such functionality is installed by the manufacturer or service provider or at their direction, for use by a consumer over a given interface. The Commission provides that the existing deployment benchmarks and related requirements will apply to newly covered handsets and air interfaces beginning January 1, 2018, with an additional three months allowed for handsets offered by non-Tier I service providers. The Commission further provides that, during this transition period, manufacturers may continue to obtain a hearing aid compatibility rating for a handset's operation on a given interface without testing software-enabled voice functions provided they meet applicable disclosure requirements.

5. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered

52. The RFA requires an agency to describe any significant, specifically small business alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): “(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting

requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) exemption from coverage of the rule, or any part thereof, for small entities.”

53. In adopting the Fourth Report and Order, the Commission expands the scope of the wireless hearing aid compatibility rules to cover handsets used with any terrestrial mobile service that enables two-way real-time voice communications among members of the public or a substantial portion of the public, including through the use of pre-installed software applications. The change in scope ensures that handsets with emerging voice technologies are subject to hearing aid compatibility requirements. At the same time, the new scope eases burdens on manufacturers and service providers, including small entities, by permitting handsets already certified to continue to be treated as hearing aid-compatible without any need for recertification after the expanded scope of the hearing aid compatibility rules goes into effect. The new scope also eases burdens for small entities by applying the same de minimis exception rules when the existing M- and T-rating deployment benchmarks begin to apply to all handsets, including newly covered operations, that a manufacturer or a service provider offers.

54. The Commission adopts a transition period in order to reduce burdens on small entities and others. The Commission finds it in the public interest to adopt a January 1, 2018 transition date (for manufacturers and Tier I carriers) and an April 1, 2018 transition date (for other service providers) for applying section 20.19’s deployment benchmarks and related requirements to newly covered operations. Some commenters support longer time frames of up to an additional 12 months for small, rural, and/or Tier III service providers who, these commenters contend, do not have the same access to new handsets as Tier I providers. The Commission considered this alternative proposal and decided to afford an additional three months for non-Tier I service providers to meet the deployment benchmarks and related requirements for handsets newly subject to the hearing aid compatibility rules. In allowing

additional time until the April 1, 2018 transition date, the Commission recognizes that non-Tier I service providers often have difficulty obtaining the newest handset models. The Commission determined that the record does not demonstrate a need for a longer transition period for non-Tier I service providers (including small entities) nor provide any reason to depart from prior hearing aid compatibility transitions in which the Commission afforded non-Tier I providers an additional three months beyond the transition period provided to Tier I service providers because, in part, a shorter period would better meet the needs of consumers with hearing loss.

6. Report to Congress

55. The Commission will send a copy of the Fourth Report and Order, including this FRFA, in a report to be sent to Congress pursuant to the Congressional Review Act. In addition, the Commission will send a copy of the Fourth Report and Order, including this FRFA, to the Chief Counsel for Advocacy of the SBA. A copy of the Fourth Report and Order and FRFA (or summaries thereof) will also be published in the Federal Register.

B. Final Paperwork Reduction Act Analysis

56. The Fourth Report and Order does not contain substantive new or modified information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. It does not contain any substantive new or modified information collection burden for small business concerns with fewer than 25 employees, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, see 44 U.S.C. 3506(c)(4).

C. Congressional Review Act

57. The Commission will include a copy of this Fourth Report and Order and Notice of Proposed Rulemaking in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act, see 5 U.S.C. 801(a)(1)(A).

III. ORDERING CLAUSES

58. IT IS ORDERED, pursuant to sections 4(i), 303(r), and 710 of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 303(r), and 610, this Fourth Report and Order IS HEREBY ADOPTED.

59. IT IS FURTHER ORDERED that the rule amendments WILL BECOME EFFECTIVE 30 days after their publication in the Federal Register.

60. IT IS FURTHER ORDERED that the Commission's Consumer & Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Fourth Report and Order, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

List of Subjects in 47 CFR Part 20

Communications common carriers, Communications equipment, Incorporation by reference,
Radio.

FEDERAL COMMUNICATIONS COMMISSION.

Gloria J. Miles,
Federal Register Liaison Officer.
Office of the Secretary.

Final Rules

For the reasons discussed in the preamble, the Federal Communications Commission amends 47 CFR part 20 as follows:

PART 20 - - COMMERCIAL MOBILE SERVICES

1. The authority citation for part 20 is revised to read as follows:

AUTHORITY: 47 U.S.C. 151, 152(a) 154(i), 157, 160, 201, 214, 222, 251(e), 301, 302, 303, 303(b), 303(r), 307, 307(a), 309, 309(j)(3), 316, 316(a), 332, 610, 615, 615a, 615b, 615c, unless otherwise noted.

2. Section 20.19 is amended by revising paragraphs (a)(1) and (2), (a)(3)(iv), and (b)(3)(i) to read as follows:

§ 20.19 Hearing aid-compatible mobile handsets.

(a) * * *

(1) Service providers. (i) On or after January 1, 2018 for Tier I carriers and April 1, 2018 for service providers other than Tier I carriers, the hearing aid compatibility requirements of this section apply to providers of digital mobile service in the United States to the extent that they offer terrestrial mobile service that enables two-way real-time voice communications among members of the public or a substantial portion of the public, including both interconnected and non-interconnected VoIP services, and such service is provided over frequencies in the 698 MHz to 6 GHz bands.

(ii) Prior to January 1, 2018 for Tier I carriers and April 1, 2018 for service providers other than Tier I carriers, the hearing aid compatibility requirements of this section apply to providers of digital CMRS in the United States to the extent that they offer real-time, two-way switched voice or data service that is interconnected with the public switched network and utilizes an in-network switching facility that enables the provider to reuse frequencies and accomplish seamless hand-

offs of subscriber calls, and such service is provided over frequencies in the 698 MHz to 6 GHz bands.

(2) Manufacturers. On or after January 1, 2018, the requirements of this section also apply to the manufacturers of the wireless handsets that are used in delivery of the services specified in paragraph (a)(1)(i) of this section. Prior to January 1, 2018, the requirements of this section also apply to the manufacturers of the wireless handsets that are used in delivery of the services specified in paragraph (a)(1)(ii) of this section.

(3) * * *

(iv) Service provider refers to a provider of digital mobile service to which the requirements of this section apply.

* * * * *

(b) * * *

(3) * * *

(i) Except as provided in paragraph (b)(3)(ii) of this section, a wireless handset used for digital mobile service only over the 698 MHz to 6 GHz frequency bands is hearing aid-compatible with regard to radio frequency interference or inductive coupling if it meets the applicable technical standard set forth in paragraph (b)(1) or (b)(2) of this section for all frequency bands and air interfaces over which it operates, and the handset has been certified as compliant with the test requirements for the applicable standard pursuant to § 2.1033(d) of this chapter. A wireless handset that incorporates operations outside the 698 MHz to 6 GHz frequency bands is hearing aid-compatible if the handset otherwise satisfies the requirements of this paragraph (b).

* * * * *

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